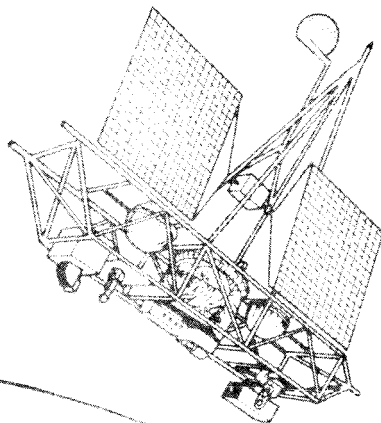




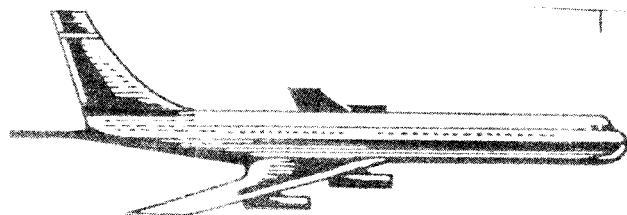
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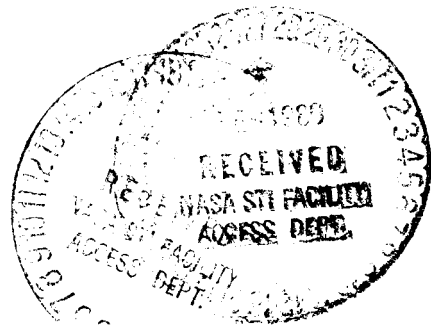
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PREFACE

For more than 60 years, Langley engineers, scientists, and technicians have been conducting basic and applied research in fluid and flight mechanics; flight systems; structures and materials; acoustics and noise reduction; measurements and instrumentation systems; data systems; and space and Earth sciences. The results of this research are disseminated through NASA scientific and technical publications as well as non-NASA media such as technical or professional society journals and similar periodicals; domestic and foreign presentation of papers, talks, and lectures; and in the proceedings of conferences and symposia.

The research output of the Center is processed through Langley's scientific and technical information program, which is an integral part of the Agency's scientific and technical information program. The Center's program is managed by the Scientific and Technical Information Programs Division (STIPD).

This document is a compilation of the Scientific and Technical Information that the Langley Research Center has produced during the calendar year 1979. Included in this listing are NASA Technical Papers, Technical Memorandums, Conference Publications, Reference Publications, Special Publications, Contractor Reports, Journal Articles, and Technical Presentations made at Society and Professional meetings. NASA Formal Reports included in this listing are those that have been mailed and distributed to the ultimate user. In selecting Journal Articles, only those articles which were published in a Journal during the calendar year 1979 are included. Similarly, material presented at Society and Professional meetings during the calendar year 1979 is included. For calendar year 1979 the output of the Langley Research Center included: 186 NASA Formal Reports; 116 Quick-Release Technical Memorandums; 303 Contractor Reports; 148 Journal Articles; and 610 Speeches, Lectures, and Presentations.

The material presented here is listed first by Division and then under the following headings: (a) Formal Reports, (b) Contractor Reports, (c) Articles and Meeting Presentations, and (d) Quick-Release Technical Memorandums. Under each heading, the material is listed by authors in alphabetical order. If a report has more than one author and those authors are from different Divisions, the report is listed only once, under the senior author's name.

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NASA LANGLEY RESEARCH CENTER
Hampton, Virginia

CALENDAR YEAR 1979

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2. Myers, Raymond H.: The Alteration of Profile Analysis to Accommodate Testing Functions. NASA CR-159117, 1979. (L-72497A Raymond H. Myers)
3. Noonan, Robert E.: The Design of Relatively Machine-Independent Code Generators. NASA CR-159016, 1979. (NAS1-14972-T14 College of William and Mary)
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11. Park, Stephen K.: The Inversion of Multispectral Image Data. Presented at the Second International Conference on Information Sciences and Systems, July 1979.
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3. Klein, Vladislav: Determination of Stability and Control Parameters of a Light Airplane From Flight Data Using Two Estimation Methods. NASA TP-1306, 1979.
4. Martz, C. William: Two-Impulse Reorientation of Asymmetric Spacecraft. NASA TP-1554, 1979.
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3. Foudriat, E. C.: Support Tools for the 80's. Presented at the AIAA Conference on Future Shock—Computers in the 1980's, December 1979.
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16. Montgomery, Raymond C.; and Johnson, C. Richard, Jr.: The Dual Momentum Control Device for Large Space Systems. Presented at the AIAA Conference on Advanced Technology for Future Space Systems, May 1979.
17. Montgomery, Raymond C.; and Taback, Daniel: Application of Analytical Redundancy Management to Shuttle Crafts. Presented at the 17th IEEE Conference on Decision and Control, January 1979.
18. Moul, M. T.; and Brown, L. W.: Preliminary Study of Pilot Lateral Control of Two Light Airplanes Near the Stall. Presented at the AIAA Guidance and Control Conference, August 1979.
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21. Peele, Ellwood L.: Application of Digital Computers to Improved Airplane Design. Presented at the Virginia Computer User's Conference, April 1979.

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7. Moul, Thomas M.: Wind-Tunnel Investigation of the Flow Correction for a Model-Mounted Angle of Attack Sensor at Angles of Attack From -10° to 110° . NASA TM-80189, 1979.
8. Peele, Ellwood L.; and Adams, William M., Jr.: A Digital Program for Calculating the Interaction Between Flexible Structures, Unsteady Aerodynamics and Active Controls. NASA TM-80040, 1979.
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3. Rediess, Herman A.; and McIver, Duncan E.: Avionics and Controls Research. NASA CP-2061, 1979.
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3. Burns, Michael R.: Users Manual for Linear Time-Varying Helicopter Simulation (Program TVHIS). NASA CR-159020, 1979. (NAS1-14358 The Analytic Sciences Corporation)
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21. Anon.: Design Study of a Low Cost Civil Aviation GPS Receiver System. NASA CR-159176, 1979. (NAS1-15343 Magnavox Government and Industrial Electronics Company)

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4. Bavuso, Salvatore J.: Trends in Reliability Modeling Technology for Fault Tolerant Systems. Presented at the AGARD 37th Technical Meeting of the Avionics Panel on Avionics Reliability, Its Techniques and Related Disciplines, April 1979.
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9. Blume, Hans-Juergen C.; Swift, Calvin T.; and Kendall, Bruce M.: Advanced Systems Requirements for Ocean Observations via Microwave Radiometers. AIAA Progress in Astronautics and Aeronautics, 1979.
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11. Bryant, W. H.; Downing, D. R.; and Ostroff, A. J.: A Real-Time Simulation Facility for Advanced Digital Guidance and Control System Research. Presented at the IEEE/AIAA Third Digital Avionics Systems Conference, November 1979.
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No quick-release technical memorandums.

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No articles and meeting presentations.

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No formal reports.

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